Amendments to the Specification:

1. Page 1, before line 4 but after the title, please insert the following:

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is a U.S. National Stage of International Application No. PCT/EP2005/001841, filed February 22, 2005, which claims priority of German Patent Application No. 10 2004 008772.5, filed February 23, 2004.

BACKGROUND OF THE INVENTION

1. Field of the Invention

2. Page 1, before line 9, please insert the following:

2. Discussion of Background Information

3. Page 2, before line 21, please insert the following:

SUMMARY OF THE INVENTION

The present invention provides a composition for the production of an abrasion-resistant and alkali-resistant coating or shaped body with a low-energy surface. The composition comprises

(a) a curable binder system comprising at least one organic polymer or oligomer with one or more functional groups or a precursor thereof,

(b) at least one fluorinated polymer or oligomer having at least one functional

group which is reactive with a functional group of the binder system, and

(c) one or more types of inorganic particles.

In one aspect of the composition, component (b) may comprise one or more of a $-SO_3H$ group, a $-PO_3H$ group, an amino group, a carboxyl group and a hydroxyl group. For example, component (b) may comprise a fluorinated polyether and/or a fluoroethylene-alkyl vinyl ether copolymer.

In another aspect of the composition, component (c) may be present in an amount of from 5 % to 60 % by weight, based on the total weight of components (a), (b) and (c).

In yet another aspect, component (c) may comprise at least one ceramic material and/or may comprise at least one compound selected from one or more of oxides, nitrides, carbides, carbonitrides, silicides and borides and/or may comprise one or more of SiC, B_4C, SiO_2, Al_2O_3, ZrO_2 and TiO_2 and/or may comprise at least one abrasive material selected from diamond, granite, pumice, tripel, silicon carbide, emery, alumina, silica, gypsum and boron carbide and/or may comprise surface-modified particles and/or may comprise particles which are modified with one or more radicals which comprise an epoxy group or an amine group and/or may comprise particles having a mean particle diameter of from 0.1 μm to 100 μm, e.g., from 1 μm to 20 μm.

In a still further aspect of the composition of the present invention, component (a) thereof may comprise at least one of an epoxy resin, a polyol, an (unblocked or blocked) polyisocyanate, a polyester, a polyacrylate, a polyamine, a polyamide, a polyimide, a polybenzimidazole and precursors thereof and/or may comprise a crosslinking agent and/or a hardener such as, e.g., at least one of a (blocked or unblocked) isocyanate group, an acid anhydride group, an amine group and a hydroxyl group.

In another aspect, component (a) of the composition of the present invention may comprise one or more of a di- or tetracarboxylic acid, an anhydride thereof or another derivative thereof as a carboxylic acid component, and at least one of a diamine and a tetramine as an amine component, at least one of the carboxylic acid component and the amine component comprising an aromatic radical.

In another aspect, the composition may further comprise a solvent and/or at least one additive.

The present invention also provides a composition for the production of an abrasion-resistant and alkali-resistant coating or shaped body with a low-energy surface. The composition comprises

(a) a curable binder system comprising one or more of an epoxy resin, a polyol, a polyisocyanate, a polyester, a polyacrylate, a polyamine, a polyamide, a polyimide, a polybenzimidazole and precursors thereof,

(b) at least one fluorinated polymer or oligomer having at least one functional group which is reactive with a functional group of the binder system and comprises one or more of a $-SO_3H$ group, a $-PO_3H$ group, an amino group, a carboxyl group and a hydroxyl group, and

(c) one or more types of inorganic particles which comprise at least one compound selected from one or more of oxides, nitrides, carbides, carbonitrides, silicides and borides and have a mean particle diameter of from 0.1 μm to 100 μm.

In one aspect of the composition, component (c) thereof may be present in an amount of from 5 % to 60 % by weight, based on the total weight of (a), (b) and (c), and/or may comprise surface-modified particles, and/or component (b) may comprise a fluorinated polyether and/or a fluoroethylene-alkyl vinyl ether copolymer.

In another aspect, component (a) may comprise one or more of a di- or tetracarboxylic acid, an anhydride thereof or another derivative thereof as a carboxylic acid component, and at least one of a diamine and a tetramine as an amine component, at least one of the carboxylic acid component and the amine component comprising an aromatic radical.

The present invention also provides a process for producing a substrate having an abrasion-resistant and alkali-resistant coating with a low-energy surface. The

process comprises applying to the substrate a composition of the present invention as set forth above, including the various aspects thereof, and curing the applied composition.

The present invention also provides a substrate having an abrasion-resistant and alkali-resistant coating with low-energy surface. The coating of this substrate comprises a cured composition of the present invention as set forth above, including the various aspects thereof.

In one aspect, the coating may exhibit substantially no vertical concentration gradient of component (b) and/or the coating may be high-temperature-resistant and/or the coating may exhibit an abrasion value, measured after 1,000 cycles on a Taber abrasion apparatus, of less than 5 mg, e.g., of not more than 3 mg, and/or the coating may exhibit a contact angle with respect to water, measured on a smooth surface, of at least 80° and/or a contact angle with respect to hexadecane, measured on a smooth surface, of at least 45°, e.g., at least 50°.

The present invention also provides a process for producing an abrasion-resistant and alkali-resistant shaped body with a low-energy surface. The process comprises shaping a composition of the present invention as set forth above, including the various aspects thereof, and curing the shaped composition.

The present invention also provides an abrasion-resistant and alkali-resistant

shaped body. The shaped body comprises a cured composition of the present invention as set forth above, including the various aspects thereof.

The present invention also provides a method of keeping an object or built structure clean. The method comprises providing the object or built structure with a coating which comprises a cured composition of the present invention as set forth above, including the various aspects thereof, or producing the object or built structure from the composition of the present invention as set forth above, including the various aspects thereof.

DETAILED DESCRIPTION OF THE INVENTION